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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/862,368	05/22/2001	Ramin Farjad-Rad	2789.2011-001	8681

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EXAMINER

KINKEAD, ARNOLD M

ART UNIT

PAPER NUMBER

2817

DATE MAILED: 06/05/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/862,368

Applicant(s)

FARJAD-RAD, RAMIN

Examiner

Arnold M Kinkead

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 December 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13, 15-28 and 30-45 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 3-11, 13, 15-26, 28, 30-35, 37, 41 and 44 is/are rejected.
- 7) ☒ Claim(s) 2, 12, 27, 36, 38-40, 42, 43, and 45 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

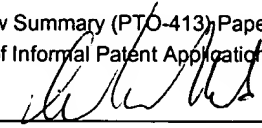
Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: 

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DETAILED ACTION

1. The declaration filed on 12-17-02 under 37 CFR 1.131 has been considered but is ineffective to overcome the Farad-Rad et al reference(now being applied).

The declaration does not state whether applicant was sole inventor, i.e., the reference was by applicant and others.

(please note affidavit identifies claims 1,17,32, and 34 as representative claims covered

By the reference.)

Claim Objections

Claims 15 and 16 are objected to as depending from a canceled claim(#14).

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 17 and 18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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In claim 17, lines 2 and 3, " the error signal" and on line 5, " the error signal frequency" lacks proper antecedent basis.

Claim 18 is indefinite too as it depend from 17 and on line 3, " error signal frequency" is recited.

In claim 31, line 1, " phase detector" is recited, should this be – frequency detector—instead? And on line 3,

" frequency detector" should this then be – phase detector--?

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 1,3,4,5-11,13,15,16, 17,19-26,28,30,31,32-35,37, 41 and 44 are rejected under 35

U.S.C. 102(a) as being anticipated by Farjad-Rad et al(cited by applicant).

A frequency monitor(the entire circuit) is shown in figures 10,11a,b comprising edge detector(producing an output pulse for each rising/falling edge of the Vph error signal, with conductive circuit(switch with inherent effective resistance, i.e., open=large resist, short=no resist...) and a capacitor(Cone) which is charged depending on the rate of the edge detector output. An indicator

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circuit(Schmitt type comparator is shown which provides an indication level based on the charge level and a threshold inherent to the device). The frequency monitor selects the phase detector or frequency detector based on the comparisons/difference between (data input/or CKreference and oscillator frequency (being within a set margin, capture range(see p. 760,col.2) of the PLL)(cls. 30,31)

The reference by Farad-Rad et al further describes the frequency monitor system(see figure 10) comprising an analog data phase detector(note description of figure 6, p. 759, for analog edge samples) and the sampling clock(Fck, from the VCO oscillator)(see cls. 20,22). Plural sources include the phase detector and the frequency detector circuit as shown in figure 10(see claim 21); The frequency acquisition circuit compares the Fck with a reference(CKref) to output a signal indicative of the frequency difference and being provided to the selector via LPF2(see claim 23) . A phase detector compares the clock signal(Fck) with a rate of the incoming data to produce a data phase detector output(an error signal), this being sent to the selector via LPF1(see claims 24,25). The method steps being inherent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 17,19, and 26 are rejected under 35 U.S.C. 102(b) as being anticipated by Rizzo(US 4,787,097, of record).

The reference by Rizzo discloses a Frequency lock system which includes (combiner)circuit(21) for producing an error signal, see figure 3, and col. 4, lines 14-65, a lpf(with inherent capacitor and discharge/charging of the capacitance) for low pass filtering(23) is shown, and indicating means comprising a phase-frequency detector(27),

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and single shot circuit(31) with selection output (32). The phase detector(one source) is allowed to operate if the oscillator frequency and input data frequency are within a certain margin(see abstract), otherwise the PFD 41(other source) operates to control the oscillator(16). The method steps being inherent.

Allowable Subject Matter

2. Claims 2,12,27,36,38-40,42,43, and 45 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The examiner could not find fair suggestion for the combiner circuit with mixer to produce the error signal, and a switched capacitor circuit as recited.

3. Claim 18 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Arnold M Kinhead whose telephone number is 703-305-3486. The examiner can normally be reached on Mon-Fri, 8:30 am -5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Pascal can be reached on 703-308-4909. The fax phone numbers for the organization where this application or

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proceeding is assigned are 703-308-7724 for regular communications and 703-308-7724 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.



Arnold M Kinkead
Primary Examiner
Art Unit 2817

Arnold Kinkead
May 31, 2003